



Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. **(Currently amended)** Method of photopolymerization of a coating on at least one substrate (23) surface, in which the said coating applied on the said substrate (23) is submitted to at least a first exposure of infrared rays having a short or medium wavelength, ~~characterized~~ characterized in that the said coating is submitted to at least a second exposure of infrared rays having respectively medium or short wavelength, the said short or medium infrared rays derived from generators of short (22a) and medium (22b) infrared rays, arranged on the side of the said substrate surface (23).
2. **(Original)** Method according to claim 1, characterized in that the said first exposure is carried out to infrared rays having a short wavelength and the second exposure to infrared rays having a medium wavelength.
3. **(Original)** Method according to claim 1, characterized in that at least one additional exposure is carried out by mean of generators of medium (22b) infrared rays.
4. **(Original)** Method according to claim 1, characterized in that each exposure is modulated in power and/or time according to the instantaneous temperature of the said coating.
5. **(Original)** Method according to claim 1, characterized in that the said exposures are performed simultaneously.

6. **(Original)** Method according to claim 1, characterized in that the said exposures are performed successively so that duration of each exposure is less than thirty seconds and preferably less than five seconds.

7. **(Original)** Method according to claim 1, characterized in that the said substrate (23) is displaced according to a predetermined path vis-à-vis the said generators of short (22a) and/or medium (22b) infrared rays and/or the said generators of short (22a) and/or medium (22b) infrared rays vis-à-vis the said substrate.

8. **(Original)** Method according to claim 1, characterized in that it is proceeded to a series of sequences of exposures, each sequence comprising at least the said first and second exposures.

9. **(Original)** Method according to claim 1, characterized in that a raise in temperature of the interface situated between de said substrate (23) and the said coating is performed according to a curve shifted vis-à-vis the one of the substrate surface (23).

10. **(Original)** Method according to claim 1, characterized in that use is made of at least short infrared rays of which the wavelength of the emission peak is situated between 0.4 and 1.4 micrometers and preferably approximately equaling 1 micro meter and at least medium infrared rays with a wavelength of the emission peak situated between 1.4 and 3 micrometers, preferably approximately equaling 1.7 micrometers.

11. **(Original)** Method according to claim 1, characterized in that generators of rapid infrared rays (22a, 22b) are used, featuring a weak thermal inertia and emission and extinction start times of less than one second.

12. **(Original)** Method according to claim 1, characterized in that also ultraviolet rays are used in combination with the said short and medium infrared rays.

13. **(Currently amended)** Installation (20, 200) for implementing the method of photopolymerizing a coating applied on at least one surface of a substrate (23), this installation comprising at least one frame (210), at least a first exposure area (A1) of the said coating, fitted with generators of short (22a) or medium (22b) infrared rays, ~~characterized~~ characterized in that it comprises at least a second exposure area (A2) fitted with generators of respectively medium (22b) or short (22a) infrared rays, said generators of short (22a) and medium (22b) infrared rays arranged on the side of the said surface substrate (23).

14. **(Original)** Installation according to claim 13, characterized in that the said first exposure area (A1) is fitted with generators of short (22a) infrared rays and the second exposure area (A2) is fitted with generators of medium (22b) infrared rays.

15. **(Original)** Installation according to claim 13, characterized in that it comprises at least one additional generator of medium (22b) infrared rays.

16. **(Original)** Installation according to claim 13, characterized in that the said generators of short (22a) and/or medium (22b) infrared rays are adjustable in power and/or time according to the instantaneous temperature of the said coating.

17. **(Original)** Installation according to claim 13, characterized in that the said generators of short (22a) and/or medium (22b) infrared rays are arranged in such a way that the said exposure area (A1, A2) are at least partially superposed.

18. **(Original)** Installation according to claim 13, characterized in that it comprises conveying means (230a) configured to move in accordance with a predetermined path, the said substrate (23) vis-à-vis the said generators of short

(22a) and/or medium (23) infrared rays and/or the said generator of short (22a) infrared rays vis-à-vis the said substrate (23).

19. **(Original)** Installation according to claim 13, characterized in that the said generators of short (22a) and/or medium (22b) infrared rays are arranged in group, each comprising at least one generator of short (22a) infrared rays and at least one generator of medium (22b) infrared rays.

20. **(Original)** Installation according to claim 13, characterized in that the said generators of short (22a) and/or medium (22b) infrared rays are mounted movably in translation vis-à-vis the said frame (210) and connected to drive means (240) configured to modify the exposure distance between the said generators of short (22a) and /or medium (22b) infrared rays and the said substrate (23) surface.

21. **(Original)** Installation according to claim 13 configured to polymerize at least one coating applied on two opposite surfaces of the same substrate (23), characterized in that the said generators of short (22a) and/or medium (22b) infrared rays are arranged on each side of the said substrate (23) to expose it on the two opposite surfaces.

22. **(Original)** Installation according to claim 20, characterized in that the said generators of short (22a) and/or medium (22b) infrared rays are mounted on at least one gantry (241) suspended to the said frame (210) and supported by at least one carriage (242) movable in translation in at least one guiding rail (211) fixed to the said frame (210) and in that the said drive means (240) comprise at least one actuator (243) and one transmission (244) between the said actuator (243) and the said carriage (242).

23. **(Original)** Installation according to claim 13, characterized in that the said generators of short (22a) and/or medium (22b) infrared rays are mounted movably in rotation vis-à-vis the said frame (210) around axes (D) and are connected to pivoting

means (250) configured to modify the exposure angle on the said substrate (23) surface in making the said generators of short (22a) and/or medium (22b) infrared rays rotate simultaneously or independently.

24. **(Original)** Installation according to claim 23, characterized in that each generator of short (22a) and/or medium (22b) infrared rays is lodged in a cassette (221) coupled to the said pivoting means (250), the said cassettes (221) mounted adjacently on the said gantry (241).

25. **(Original)** Installation according to claim 24, characterized in that each cassette (221) comprises an approximately cylindrical tubular body (223) fitted with at least one reflector (224) in front of which at least one emitting tube (225) is placed, forming the said generators of short (22a) and/or medium (22b) infrared rays.

26. **(Original)** Installation according to claim 25, characterized in that the said cassettes (221) are hollow and passed through by a cooling air circuit (260).

27. **(Original)** Installation according to claim 13, characterized in that it comprises generators of ultraviolet rays used in combination with the said generators of short (22a) and medium (22b) infrared rays.

28. **(Original)** Installation according to claim 13, characterized in that it comprises at least one auxiliary generator (222) of short and/or medium infrared rays arranged at one lateral end of at least one of the said exposure areas (A1, A2) defined by the said generators of short (22a) and medium (22b) infrared rays, the auxiliary generator (222) being coupled to the pivoting means.

29. **(Currently amended)** Installation according to ~~any of the claims 13 to 28~~ claim 13, characterized in that it comprises at least one computerized management unit configured to automatically control the said generators of short (22a) and

medium (22b) infrared rays, the said drive means (240) and the pivoting means (250) according to the shape and the dimensions of the said substrate (23) as well as to the thickness and the nature of the layer of the coating to be polymerized.

30. **(Currently amended)** Product constituted of a substrate (23) covered on at least one of its surfaces with an at least polymerized coating, characterized in that it is obtained by the method according to ~~any one of the claims 1 to 12~~ claim 1.